

Indonesia - Green Prosperity: On Grid Renewable Energy Grant Portfolio

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Overview

Identification

COUNTRY

Indonesia

EVALUATION TITLE

Green Prosperity: On Grid Renewable Energy Grant Portfolio

EVALUATION TYPE

Independent Performance Evaluation

ID NUMBER

DDI-IDN-MCC-GPE-ORE-2019-v01

Version

VERSION DESCRIPTION

- v01: Edited, anonymous dataset for public distribution.

Overview

ABSTRACT

MCC contracted Integra to conduct a performance evaluation (PE) of the On-grid RE grants, both successful and unsuccessful. Integra employs a performance evaluation approach to answer the evaluation questions employing both qualitative and quantitative methods. Document and literature review, KIIs, site visits, and FGDs are the primary tools.

EVALUATION METHODOLOGY

Other (Performance Evaluation)

UNITS OF ANALYSIS

Grantees, community members, contractors, government officials, MCA-I and MCC staff

KIND OF DATA

Other

TOPICS

Topic	Vocabulary	URI
Energy	MCC Sector	

KEYWORDS

Performance evaluation, Compact, Indonesia, Green Prosperity Project, Environment, Grants, Natural Resource Management, Renewable Energy, On-grid, Off-grid

Coverage

GEOGRAPHIC COVERAGE

The awardees are located in Riau, West Sumatra, West Nusa Tenggara, Lombok Tengah, Lombok Barat, Jambi, Muaro Jambi, Sulawesi Selatan, Gowa, Cakranegar, Gorontalo, and the Bone Bolango District.

UNIVERSE

Qualitative data collection respondents include successful grantees, village leaders, beneficiary community, grantees that did not successfully complete the program, MCA-I staff, MCC staff, on-grid renewable energy contractors, Government of Indonesia (national and local), beneficiaries of the community benefit sharing agreements, and donors.

Producers and Sponsors

PRIMARY INVESTIGATOR(S)

Name	Affiliation
Integra Government Services International LLC	

FUNDING

Name	Abbreviation	Role
Millennium Challenge Corporation	MCC	

Metadata Production

METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Millennium Challenge Corporation	MCC		Review of Metadata
Integra Government Services International LLC			Independent Evaluator

DATE OF METADATA PRODUCTION

2019

DDI DOCUMENT VERSION

Version 1 (2019-02-28): This is the original version, to be used as the template for upcoming data reporting.

DDI DOCUMENT ID

DDI-IDN-MCC-GPE-ORE-2019-v01

MCC Compact and Program

COMPACT OR THRESHOLD

Indonesia Compact I

PROGRAM

In 2011, MCC entered into a Compact agreement with the Government of Indonesia, to support the government's priority of sustainable economic growth for the country, focused on green prosperity, community-based health and nutrition to reduce stunting, and procurement modernization. The Green Prosperity Project was the largest component for the flagship, consisting of four activities: 1. Participatory Land Use Planning (PLUP) Activity: The PLUP Activity focused on investment in administrative boundary setting, the updating and integration of land use inventories, and enhancing spatial plans at district and provincial levels. 2. Technical Assistance and Oversight (TAO) Activity: The TAO Activity provided technical assistance and project oversight for grants issues under the Compact. Eligible districts, project sponsors, and community groups were identified and offered assistance in their development of potential investments in sustainable and low-carbon economic growth. Technical assistance in the form of application preparation for submission to the GPF was also offered. 3. Green Prosperity (GPF) Activity: As the grant funding facility for the Compact, the GPF was responsible for the financing of low-carbon development projects and is the entity under which funding windows and later thematic portfolios was supported. 4. Green Knowledge (GK) Activity: Designed to support knowledge management and capacity building, the GK Activity provided technical assistance and support for strengthening local, provincial and national capacity to drive forward Indonesia's a nation-wide low-carbon development strategy within the context of the GP Project. Although increased penetration of renewable energy, both on and off the grid makes strong economic sense with certain technologies and in specific locations, it is failing to happen for a variety of reasons that include: - the lack of a favorable enabling environment; - project developers and consultants that are ill-trained; - financial market imperfections that are reducing effective access; and - a vertically integrated utility that has financial incentives to increase access to large scale thermal and renewable plants even when economic conditions dictate otherwise. Integra was tasked with evaluating the GPF's On-Grid RE portfolio selection of projects, the value of Technical Assistance Project Preparation (TAPP) work in terminated projects, and the results of completed projects.

MCC SECTOR

Energy (Energy)

PROGRAM LOGIC

The GPF on-grid RE objectives appear to be consistent with, and built upon, GoI priorities. The GPF was designed to partially fund (a major share) of commercial scale, on-grid RE that was less than 10MW. Proposals accepted into the GPF had to reach a minimum of 10% Economic Rate of Return (ERR). The GPF was designed to “reduce poverty through low carbon economic growth” by (1) providing technical assistance to complete grant requirements such as the International Finance Corporation (IFC) safeguards and project preparation through a grant; (2) through the Compact, the GP also provided policy solutions to deal with barriers to RE; and (3) directly funding RE projects. The TAPP grant paid for the preparation of project documents such as engineering design and feasibility studies. While the Program Management Consultant did not provide technical assistance directly, they did so indirectly through the process of reviewing deliverables and pointing out problems such as inadequate design measures or insufficient hydrological evidence. The Compact required the GoI to undertake certain policy and operating measures. They were to adopt a feed-in tariff (FiT) for non-hydro RE that “shall provide a reasonable incentive for independent power producers to develop and sell power to...” Perusahaan Listrik Negara (the State Electricity Company, or PLN). And, “PLN shall issue the following (i) standard, transparent procedures for structuring and executing transactions involving independent power producers, (ii) a standard bankable power purchase agreement (PPA) for small-scale renewable power producers by technology type; and (iii) standardized application procedures for renewable energy project developers.” Finally, the GPF assumed that the final barrier was either the absence of funds or the cost of funds that keeps on-grid investment levels for RE plants (at or below 10 MW) from reaching optimal levels. In other words, a major impediment to increased investment was the cost or availability of funds. That was, after all, what the GPF was providing for on-grid RE. It provided direct funding (Full Grant or grants that fund an accepted project) or TAPP funding for technical preparation. “Selected projects will receive TAPP Grants that will strengthen project preparation and feasibility studies, high quality DED, and identification of risks and its mitigation. This support will also improve trust from finance institution to finance the projects, to ensure the projects can be implemented up to the construction phase.” Specifically, RE grant projects meet the GP objective of reducing reliance on fossil fuels by increasing the share of grid electricity provided by a renewable source, thereby displacing the use of GHG emitting power plants. These grants would achieve the objective of increasing productivity by: (1) reducing costs to the utility (PLN) compared to the grid average cost generation and (2) by providing long term, sustainable benefits to the community from the project’s revenues (the CBS component). The basic hypothesis behind the GP approach to on-grid RE is that a “multipronged approach” will catalyze clean energy investment. The three prongs are technical assistance, finance (grants), and policy.

PROGRAM PARTICIPANTS

Integra Government Services International LLC conducted the evaluation, responsible for overall program management, quality assurance, review and approval of all staffing patterns and technical approaches and the final disposition of all matters related to the management and staffing of individual tasks. Limestone Analytics provided support to Integra for the CBA component of the evaluation. Their tasks included: estimating the project's post-compact economic rate of return (ERR) for the Evaluation Design Report; and analyzing why the Evaluator's estimate of the (ERR) differs from the MCC ERR estimate and interpret differences in relation to the CBA as part of the final report. In response to the call for proposals, 100 proposals/expressions of interest were received. There were two rounds of proposals. During the first round of call for proposals (CFP), there were 50 submissions, and in April 2015 21 of these were presented to the Investment Committee (IC). By August, the IC awarded eight full grants and eight TAPP grants. The second round of CFPs were completed in February 2016 with 50 proposals being submitted, out of which 11 full grants and one TAPP grant were awarded between April and June of 2016. Of these only four (4) grants made it to full implementation: Musim Mas POME plants in PT Sinar Agro Raya, PT Indoakmur Sawit Berjaya, and PT Bahama Nusa Interindo and the Lubuk Gadang Mini Hydro Power Plant Project. The Musim Mas plants are palm oil mill effluent plants, involving anaerobic bio-digestors producing methane to generate power. The Lubuk Gadang grants is a hydro-power plant.

Sampling

Study Population

Qualitative data collection respondents include successful grantees, village leaders, beneficiary community, grantees that did not successfully complete the program, MCA-I staff, MCC staff, on-grid renewable energy contractors, Government of Indonesia (national and local), beneficiaries of the community benefit sharing agreements, and donors.

Sampling Procedure

N/A

Deviations from Sample Design

N/A

Response Rate

N/A

Weighting

N/A

Questionnaires

Overview

Integra will conduct KIIs with a range of stakeholders that includes: BAPPENAS, MEMR, PLN, district and local government officials, and grantees. Given the diverse interest of these stakeholders and their participation in the GPF, KIIs will be quite diverse. The KIIs will be semi-structured allowing the team to "dig deeper" depending on the response while ensuring that the team is able to gather the most pertinent data for each evaluation question. The KIIs are designed to last no longer than 90 minutes (including translation) but given the respondent's interest may be more or less. Questionnaires to be utilized as part of this evaluation include:

- MCC Personnel KII Protocol
- MCA-I Economist Protocol
- Grantee Protocol
- GoI Energy Entity Protocol
- Community Leader Protocol

Data Collection

Data Collection Dates

Start	End	Cycle
2019-04-14	2019-05-17	N/A

Data Collection Notes

TBD

Questionnaires

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- GoI Energy Entity Protocol
- Community Leader Protocol

Data Collectors

Name	Abbreviation	Affiliation
Integra Government Services International LLC		

Supervision

The evaluation team consists of a Program Manager, Qualitative Research Methods Expert, Evaluation Specialist, Senior Economist (CBA Analyst), and Local Logistics Specialist.

The Program Manager will directly oversee the integrated evaluation and cost-benefit analysis team, delegate responsibilities to the team members, conduct quality assurance on their inputs, coordinate communication with stakeholders and data collection in Jakarta, and advise on the local context during the evaluability assessment and design of data collection tools.

Under the guidance of the Program Manager, the Qualitative Research Methods Expert will assist in developing the Evaluation Design Report and data collection tools, travel to the field to conduct data collection and oversee FGDs in the field, and lead qualitative data analysis and corresponding report writing. The Evaluation Specialist will work on developing and delivering the FGDs for women, gather and analyze cost and tariff data from PLN and possible other sources and contribute to data analysis and report writing, as assigned.

The Senior Economist (CBA Analyst) will serve as the lead economist and technical expert in examining the CBA of the project, traveling to the field to conduct data collection. Lastly, the Local Logistics Specialist will assist with logistics during fieldwork, such as arranging meetings, venues, transportation, and lodging, serve on a sub-team during data collection, and assist with quantitative data analysis as assigned.

Data Processing

Data Editing

Interview notes were cleaned at the end of each day of data collection, and aggregated at the end of each week in the evaluation team's data management system. All data editing was conducted manually based on exchanges between team members to clarify inconsistencies between notes. The team conducted team analysis sessions once per week to help identify emerging themes, trends, and/or findings. After the team completed data collection, cleaned interview notes were analyzed for coding.

Other Processing

All data was noted manually in a notebook or on a laptop during data collection. During fieldwork, interviewers would review notes to ensure accuracy. Computer typed notes were then shared with other interviewers, reviewed, and saved on the team's data management system. The evaluation specialist then used these notes to enter into the coding software used. A total of four team members typed notes and reviewed notes. One team member was responsible for coding, following a codebook and hierarchy developed by the Integra Evaluation Program Manager.

Data Appraisal

Estimates of Sampling Error

N/A